SHORT REPORT

Hepatic Artery Aneurysm Leak as a Cause of Abdominal Pain and Cholestatic Jaundice Following Abdominal Aortic Aneurysm Repair

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Introduction

Hepatic artery aneurysms are being increasingly reported in the scientific press. A Medline search from 1966 to the present revealed that a large number of those cases reported arose following laparoscopic cholecystectomy or pancreatitis, or in patients with connective tissue disease who had multiple arterial aneurysms. There have been no reported cases of hepatic artery aneurysm occurring following surgery for an abdominal aortic aneurysm. We present a case of a hepatic artery aneurysm occurring 11 days following open repair of an abdominal aortic aneurysm.

Case Report

A 75-year-old woman was admitted electively for repair of a symptomatic abdominal aortic aneurysm which had been causing her backache. She had been a smoker of 20 cigarettes per day for 45 years, and had a history of chronic obstructive airways disease and hypothyroidism. Her operation was an uneventful infra-renal repair, and the cross-clamp time was 47 min. Her post-operative recovery was slow, complicated by pneumonia on day 6 post-operatively. During the evening of her 11th post-operative day the on-call team were asked to see her as her abdomen had become distended and there was central abdominal bruising extending into both flanks. Bowel sounds were decreased and there was dullness to percussion over the lower abdomen. She was haemodynamically stable, although her haemoglobin was found to be 7.6.

The following morning she developed respiratory distress, thought to be secondary to abdominal splinting. An urgent computed tomography (CT) scan was performed which demonstrated a 1 cm pseudo-aneurysm of the left hepatic artery with surrounding haematoma, compressing the liver and portal vein (Fig. 1). Her pre-operative CT scan showed no evidence of hepatic artery aneurysm (Fig. 2). A selective left hepatic artery embolisation was performed.

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to reduce the risk of any further bleeding. Due to continuing respiratory problems, the patient was transferred to a high dependency unit (HDU) at a nearby hospital. She later died of respiratory distress.

**Discussion**

We believe the case presented here is the first time a hepatic artery aneurysm has been described following repair of an abdominal aortic aneurysm. A Medline search from 1966 to the present only revealed one similar case in a patient with Takayasu’s arteritis.1

Aneurysms of the visceral arteries are uncommon, and those of the hepatic artery are rare. Over the last decade, the number of hepatic artery aneurysms reported has increased, a large number being reported in association with percutaneous procedures on the biliary tract. Improved imaging equipment and better access to it has allowed more accurate diagnosis and less invasive procedures to be carried out. The majority of hepatic artery aneurysms are now diagnosed using angiography, although the use of three-dimensional spiral CT has been described as a possible pre-operative alternative.2

The management of hepatic artery aneurysms is either surgical or by the application of radiological procedures. Embolisation of the aneurysm is usually performed for most intrahepatic artery aneurysms, and some extrahepatic aneurysms. The remainder are treated surgically.3

Rupture of a hepatic artery aneurysm is associated with a mortality of 21%.4 Early diagnosis and intervention is therefore paramount to a successful outcome. Early embolisation of the aneurysm is a quick and effective method of treating these patients.

**References**


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